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NEW ARRIVAL

Polarized Light : Fundamentals and Applications

(Optical Engineering Series / 36)

edited by E Collett

Marcel Dekker · New York, 1992 ; ISBN 0-8247-8729-3

xvii + 581 pages, illustrated ; price \$ 175.00 (bound)

The main emphasis of this book is on general description of polarized light in terms of parameters measurable in laboratory experiments and also on the description of generation and interaction processes of light with general polarization parameters. In the first half, the phenomenology is developed starting from the classical wave equation in terms of Stokes parameters and Mueller and Jones matrix calculus. The second half deals with the production of polarized light in different fundamental processes and the change of their state of polarization through Maxwell's equations. A brief discussion of Stokes parameters in quantum processes is also given. The final three chapters demonstrate the applications of these concepts to crystal optics, metal optics and ellipsometry.

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